

09/835,030

SAR 14110

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Canceled)
2. (Currently amended) A method for performing timing recovery comprising:
producing a phase signal by comparing a signal received at each of a plurality of
inputs to a timing signal produced by a numerically controlled oscillator (NCO);
summing said phase signals to produce a sum;
adjusting said sum into an input range for the numerically controlled oscillator
(NCO). The method of claim 1 wherein said adjusting comprises:
determining whether each input can be accurately received; and
dividing the sum by a number of potentially receivable inputs; and
producing a timing signal within the NCO in response to the adjusted sum.
3. (Original) The method of claim 2 wherein said determining comprises:
determining whether an amplitude of each input is greater than a threshold value.
4. (Canceled)
5. (Currently amended) A method for performing timing recovery comprising:
producing a phase signal by comparing a signal received at each of a plurality of
inputs to a timing signal produced by a numerically controlled oscillator (NCO);
summing said phase signals to produce a sum;
adjusting said sum into an input range for the numerically controlled oscillator
(NCO), wherein said adjusting comprises:

09/835,030

SAR 14110

determining whether each input is receivable. The method of claim [[4]]
wherein said determining comprises:

determining whether an amplitude of each input is above a
threshold value;

determining an offset using a number of receivable inputs; and

adjusting the sum using the offset; and

producing a timing signal within the NCO in response to the adjusted sum.

6. (Currently amended) A method for performing timing recovery comprising:
producing a phase signal by comparing a signal received at each of a plurality of
inputs to a timing signal produced by a numerically controlled oscillator (NCO);
summing said phase signals to produce a sum;
adjusting said sum into an input range for the numerically controlled oscillator
(NCO), wherein said adjusting comprises:

determining whether each input is receivable;

determining an offset using a number of receivable inputs; and

adjusting the sum using the offset. The method of claim [[4]] wherein said

adjusting by said offset comprises:

adding the sum by the offset if the sum is below the input range;

and

producing a timing signal within the NCO in response to the adjusted sum.

7. (Currently amended) A method for performing timing recovery comprising:
producing a phase signal by comparing a signal received at each of a plurality of
inputs to a timing signal produced by a numerically controlled oscillator (NCO);
summing said phase signals to produce a sum;
adjusting said sum into an input range for the numerically controlled oscillator
(NCO), wherein said adjusting comprises:

determining whether each input is receivable;

determining an offset using a number of receivable inputs; and

09/835,030

SAR 14110

adjusting the sum using the offset. ~~The method of claim [[4]]~~ wherein said adjusting by said offset comprises:

subtracting the sum by the offset if the sum is above the input range; and
producing a timing signal within the NCO in response to the adjusted sum.

8. (Canceled)

9. (Currently amended) An [[The]] apparatus of claim 8 further for performing timing recovery of a signal received at a plurality of inputs, said apparatus comprising:
a plurality of phase detectors each detecting a phase of said signal at a different input by comparing the input signal to a timing signal from a numerically controlled oscillator (NCO);

a summer for adding said detected phases to form a sum;
a level shifter for adjusting the sum to within an input range of said NCO;
a loop filter for filtering the adjusted sum;
the NCO for generating a timing signal in response to the filtered sum;
a plurality of signal detectors each for determining whether an input signal is receivable; and
a decision circuit using a total of receivable input signals to determine an adjustment to the sum by said level shifter.

10. (Original) The apparatus of claim 9 wherein said decision circuit divides the sum by the total of receivable input signals.

11. (Original) The apparatus of claim 9 wherein said decision circuit determines an offset that is added to or subtracted from the sum by said level shifter.